



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/708,124	11/02/2000	Michael Lewis	53588-0027	9086
29989	7590	08/18/2006	EXAMINER	
HICKMAN PALERMO TRUONG & BECKER, LLP 2055 GATEWAY PLACE SUITE 550 SAN JOSE, CA 95110			ALPERT, JAMES M	
			ART UNIT	PAPER NUMBER
			3693	

DATE MAILED: 08/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/708,124

Applicant(s)

LEWIS ET AL.

Examiner

James Alpert

Art Unit

3693

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 and 24-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 & 24-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

The following communication is in response to Applicant's amendment filed on May 03, 2005.

#### ***Status of Claims***

Claims 1-2,7-22,27-30 are currently amended. Claims 3-6, 24-26 are previously presented. Claim 23 is canceled, and there are no new claims. Claims 1-22 & 24-30 are therefore, currently pending.

#### ***Response to Arguments***

In the Office Action mailed 01/30/2006, Claims 1-22 & 24-30 were rejected under the doctrine of nonstatutory obviousness-type double patenting as to U.S. Patent #6029154, and provisional double patenting, as to U.S. Patent Application Serial #11168966. Applicants have filed a terminal disclaimer as to the pending application, thereby overcoming the rejections pertaining to said application. However, Applicants contest the examiner's characterization of claims as being obvious over the cited U.S. patent. Applicants' arguments have been fully considered, and are persuasive. Therefore, the rejections have been withdrawn, but upon further consideration, a new ground(s) of rejection is made in view of Hillmer et al, U.S. Patent #6714918 (hereinafter "Hillmer") and Degen et al, U.S. Patent #6418436 (hereinafter "Degen"). claim objections and rejections are detailed below.

#### ***Objections***

Claim 17 is objected to as being improperly dependent. The claim recites:

**"The method as recited in Claim 14, wherein determining whether the city identified ..."**

However Claim 14 does not disclose a "determining whether the city identified" step. Thus this claim is lacking antecedent basis. The examiner believes that Applicants, in good faith, miswrote this claim, and that it should read:

**"The method as recited in Claim 16 ..."**

Appropriate correction is required, although for prosecution purposes, the Examiner will treat the claim as referring back to Claim 16.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 29 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, Claim 29 appears to recite the exact same limitations as Claim 1. The claim is therefore duplicative and unessential, and should be canceled.

***Priority***

The examiner would like to quickly point out that he has reviewed the current application as well as Applications 09/442106 and 08/901687. This cursory inspection has revealed that the emphasis of the current application, Figures 5A-C, as well as the later figures further clarifying the method steps, are not disclosed in the priority applications. It appears that the priority date of the previously filed applications will not be available to Applicants. The examiner is presenting art based on this conclusion.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11,14-22,24-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hillmer in view of Degen. Claims 12-13 are rejected under 103(a) as being unpatentable over Hillmer in view of Degen, and further in view of Baker, U.S. Patent #5680511.

**With regards to Claims 1,24-27,29 and 30**, Hillmer teaches a method, medium, and apparatus comprising:

receiving transaction data that defines the electronic commerce transaction;  
(Col. 4, line 38 – Col. 5, line 2)

determining a second fraud risk score value associated with the electronic commerce transaction based on a comparison of the transaction data to historical transaction data;  
(Figure 2b(1), items 308-312; Col. 7, line 42 – Col. 8, line 6, describing how customer information relating to email address, domain address, and Internet Protocol address, as well as other information is used in calculating fraud scores)

With regard to the following limitation:

determining a first fraud risk score value associated with the electronic commerce transaction based on applying a plurality of tests to the transaction data

Hillmer does not expressly disclose several of the text based tests that are described in Applicants' specification ("presentation" test). However, this type of evaluation and scoring are found in Degen at (Col. 6, line 29 – Col. 7, line 45). The transaction data is analyzed on a character-by-character basis, as well as other tests. It

Art Unit: 3693

would have been obvious to one of ordinary skill in the art at the time Applicants' invention was made to combine the teachings of Hillmer, relating to a fraud scoring based on comparing transaction data with historical records, with Degen, related to fraud scoring based on text-based evaluations. The motivation for such a combination is within the general knowledge of one of ordinary skill in the art, and is simply to create a fraud detection mechanism which performs two types of evaluations in a single process, thereby saving time and money. In addition, combining two types (or more) would also in all likelihood provide improved accuracy, over a score calculated by performing each test singularly.

With regard to the following clause:

"wherein each of the plurality of tests determines whether the transaction data appears to represent a genuine transaction based on specified criteria"

This limitation recites an intended use and is granted little patentable weight. Further, Degen discloses the idea that text based fraud scoring determines genuineness. See (Degen, Col. 5, lines 54-56).

Continuing, Hillmer teaches

combining the first fraud risk score value and the second fraud risk score value using a statistical model to result in creating a model score value; (Figure 2b(1), items 306, 324,326; Col. 12, lines 20-24; Col. 11, lines 55-65, describing the process by which the comparison operators from above are combined to return a confidence score as to whether fraudulent activity is occurring)

Although Hillmer does not expressly disclose the text-based analysis, as stated above, it would have been obvious to include said test as disclosed by Degen at the "combining" step, as that is where all the tests are combined into a final score. Hillmer discloses using "other mathematical computations", (Col. 11, lines 55-65), indicating the

idea that statistically combining scores in a variety of different combinations is contemplated. The motivation to modify Hillmer is given above as to the inclusion of the text-based analysis.

Hillmer also teaches the step comprising:

blending the model score value with one or more merchant-specific threshold values to result in creating and storing a final fraud risk score value for the electronic commerce transaction. (Figure 2b(1) item 314; Col. 8, lines 44-51; Col. 9, lines 7-10, describing the vendor multiplier points which are used to account for vendor specific weights)

As a final note, Hillmer makes it clear that the steps in his process, such a weighting, combining, blending, multiplying, etc. can be performed in a variety of different orders. See (Hillmer, Col. 13, lines 29-34). This provides flexibility presumably to a user of the process, and also suggests that minor modifications are inevitable.

**With regard to Claim 2**, Hillmer teaches the method wherein receiving transaction data comprises the steps of

receiving transaction data that defines the electronic commerce transaction for a particular Internet identity, and wherein (Col. 7, line 66 – Col. 8, line 6)

and wherein determining a second fraud risk score value comprises:

determining a second fraud risk score value associated with the electronic commerce transaction based on a comparison of the transaction data to historical transaction data for other electronic commerce transactions pertaining to the same Internet identity. (Figure 2b(1), item 308; Col. 7, line 42 – Col. 8, line 6)

**With regard to Claims 3-6**, these claims recite the various details surrounding the exact comparison data used when evaluating a specific Internet identity. While Hillmer discloses some of these factors, such as email address, IP address, shipping address, etc, others that are not disclosed (BIN, hardware ID) would only be an obvious modification to include in Hillmer. The examiner takes Official Notice of the ease in

retrieving a BIN number or a NIC card identity. Further, it would have been obvious to one of ordinary skill in the art at the time Applicants' invention was made to modify Hillmer to include these identifying factors. The motivation to modify Hillmer is withing the general knowledge of one of ordinary skill in the art, and is to expand the scope of Hillmer to include factors that, as time passes, are understood to be more and more important in determining fraud, as it relates to a form of identity. The system would be dynamic and allow for new factors as fraud experts determine what is relevant and what is not.

**With regard to Claim 7,** Hillmer teaches the method comprising:

retrieving one or more records of historic transaction data pertaining to past transactions associated with the transaction data; and when one of the records of historic transaction data is found to contain a fraud list tag, discontinuing further retrieval of such records; (Col. 8, lines 7-22)

determining the second fraud risk score value associated with the electronic commerce transaction based on only the retrieved records of historical transaction data in comparison to the transaction data.  
(Figure 2b(1), items 306, 324,326; Col. 12, lines 20-24; Col. 11, lines 55-65).

**With regard to Claim 8,** Hillmer does not expressly teach the method comprising:

when a specified amount of the records of historic transaction data is retrieved and further records of historic transaction data remain to be retrieved, discontinuing further retrieval of such records; and determining the second fraud risk score value associated with the electronic commerce transaction based on only the retrieved records of historical transaction data in comparison to the transaction data.

However, this is an obvious modification to Hillmer, and the examiner takes Official Notice that usually there can be a cutoff limit on the amount of checking one might conduct in determining a fraudulent transaction. Further, it would have been



obvious to one of ordinary skill in the art at the time Applicants' invention was made to modify Hillmer to include a records cutoff. There is a simple motivation: the idea behind all of these cases (including Applicants') is to somehow determine fraud quickly and with limited data, as opposed to doing a painstaking, endless review of records.

**With regard to Claim 9**, Hillmer teaches the method comprising:

returning code values that signal specified risk issues that have been detected with respect to the transaction. (Col. 12, lines 14-24)

**With regard to Claim 10**, Hillmer teaches the method wherein

one of the plurality of tests determines whether an Internet identity in the transaction data is found in a list of parties to known past fraudulent transactions. (Figure 2b(1), items 310-312)

**With regard to Claim 11**, Hillmer teaches the method wherein

one of the plurality of tests determines whether an Internet identity in the transaction data is found in a list of trusted parties. (Figure 2a(1), item 210)

**With regard to Claims 12-13**, Hillmer does not expressly disclose the process of testing of bi-gram values on transaction data. However, using bi-gram analysis is old and well known, as demonstrated in Baker at (Col. 6, lines 18-29; Col. 7, lines 45-52). Further it would have been obvious to one of ordinary skill in the art at the time Applicants' invention was made to combine the teachings of Hillmer to include bi-gram analysis. The motivation for such a combination is within the general knowledge of one of ordinary skill in the art, and is simply to create a fraud detection mechanism which performs two types of evaluations in a single process, thereby saving time and money. In addition, combining two types (or more) would also in all likelihood provide improved accuracy, over a score calculated by performing each test singularly.

**With regard to Claims 14-21**, Hillmer does not expressly teach the method steps that are described in these claims relating to various pieces of information that can be compared, on a superficial level, to determine irregularities. These pieces of information include: city value, area code, longitude and latitude values, email domain values, country values, and bank ID values (BIN), shipping address values, and others. Further, the claims discuss establishing tables for quick look up. However, these features are the type of information that a combination of Hillmer and Degen anticipates. Degen discloses a variety of fields in Figure 5c and at (Col. 6, line 29 – Col. 7, line 45) that relate to physical address, area code, domain names, etc. which are able to analyzed in a text evaluation. Further, Degen discloses databases storing various pieces of information, similar to that in the claim, to determine if there is an irregularity in the presentation. See (Degen, Col. 3, lines 30-51). The databases in function act like a table, as items are quickly referenced. The missing limitations, not disclosed in Degen, are old and well known in the art, including BIN's, hardware NIC cards, etc. Further, it would have been obvious to one of ordinary skill in the art at the time Applicants' invention was made to modify Hillmer in view of Degen to include an analysis of city, state, and country (in terms of physical proximity) as it relates to email domain names, area codes, and bank identification numbers, latitude and longitude indicators. The motivation for such a combination is to provide a fraud detection mechanism which performs multiple types of evaluations in a single process, thereby saving time and money. In addition, by combining tests, accuracy is likely increased over using results of a single test.

**With regard to Claim 28,** Hillmer teaches the method comprising:

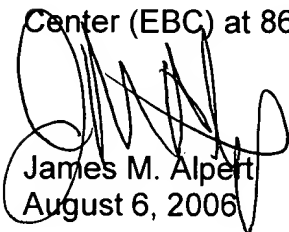
receiving the transaction data is performed by a first apparatus that is linked to a second apparatus by a network; and blending the model score value is performed by the second apparatus. (Figure 1, items 104,108)

**Conclusion**

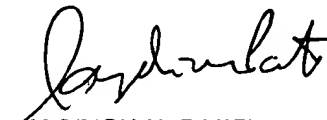
THIS ACTION IS NON-FINAL. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Alpert whose telephone number is (571) 272-6738. The examiner can normally be reached on M-F 9:30-6:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammel, can be reached on (571) 272-6712. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197.



James M. Alpert  
August 6, 2006



JAGDISH N. PATEL  
PRIMARY EXAMINER